I claim:

1.   An isolated molecule capable of:

(a)   binding to a region of transferrin that is recognized by a bacterial transferrin

binding protein; and

(b)   eliciting an antibody to said bacterial transferrin binding protein.

2.   The molecule of claim 1 wherein the molecule is an antibody.

3.   The molecule of claim 1 wherein the molecule is a recombinant protein

or peptide.

4.   The molecule of claim 1 wherein the transferrin is human transferrin,

and the transferrin binding protein is a transferrin binding protein B from a human

Gram negative bacterial pathogen.

5.   The molecule of claim 1 wherein the region of transferrin comprises a

sequence selected from the group consisting of SEQ ID NOs:1-14.

6.   An isolated peptide comprising a transferrin-binding determinant of a

transferrin binding protein of a bacterium.

7.   The peptide of claim 6 comprising the sequence selected from the

group consisting of SEQ ID NOs: 17, 20, 25, 28, 30, 34, 36, 39, and 48-86.

8.   A vaccine comprising the molecule of any of claims 1-5, or the peptide

of claim 6 or claim 7.

9.   The vaccine of claim 8 capable of eliciting antibodies that recognize a

plurality of different transferrin binding proteins.

10. The vaccine of claim 8 capable of eliciting antibodies that recognize at least two transferrin binding proteins of Gram negative bacteria.

11. The vaccine of claim 8 capable of eliciting antibodies that recognize at least two transferrin binding proteins selected from the group consisting of transferrin binding proteins of *Neisseria spp.*, *Haemophilus spp.*, *Moraxella spp.*, *Mannheimia (Pasteurella) spp.*, *Actinobacillus spp.*, and *Staphylococcus spp.*

12. The vaccine of claim 8 capable of eliciting antibodies that recognize at least two transferrin binding proteins selected from the group consisting of transferrin binding proteins of *N. meningitidis*, *H. influenzae*, *M. catarrhalis* and *S. pneumoniae.*

13. The vaccine of claim 8 capable of eliciting antibodies that recognize the transferrin binding proteins of *H. influenzae* and *M. catarrhalis.*

14. The vaccine of claim 8 capable of eliciting antibodies that recognize the transferrin binding proteins of *N. meningitidis* and *H. influenzae.*

15. An isolated antibody, or a fragment thereof, wherein the antibody recognizes a plurality of different transferrin binding proteins.

16. The antibody or fragment of antibody of claim 15, wherein the antibody is monoclonal.

17. The antibody or fragment of antibody of claim 15, wherein the antibody is polyclonal.

18. The antibody or fragment of antibody of claim 15, wherein the antibody recognizes at least two transferrin binding proteins selected from the group consisting of transferrin binding proteins of *Neisseria spp.*, *Haemophilus spp.*, *Moraxella spp.*, *Mannheimia (Pasteurella) spp.*, *Actinobacillus spp.*, and *Staphylococcus spp.*

19.   The antibody or fragment of antibody of claim 15, wherein the antibody recognizes at least two transferrin binding proteins selected from the group consisting of transferrin binding proteins of *N. meningitidis*, *H. influenzae*, *M. catarrhalis* and *S. pneumoniae*.

20.   The antibody or fragment of antibody of claim 15, wherein the antibody recognizes the transferrin binding proteins of *H. influenzae*, *M. catarrhalis* and *S. pneumoniae*.

21.   The antibody or fragment of antibody of claim 15, wherein the antibody recognizes the transferrin binding proteins of *N. meningitidis*, *H. influenzae*, and *S. pneumoniae*.

22.   A method of identifying a transferrin-binding determinant in a transferrin binding protein, comprising:

(a)   providing an overlapping peptide library corresponding to the transferrin binding protein;

(b)   determining the activity of each member of the peptide library to bind transferrin; and

(c)   identifying overlapping amino acid sequences shared by at least two binding members of the peptide library as transferrin-binding determinants.

23.   The method of claim 22 useful for the identification of conserved transferrin-binding determinants, wherein the method further comprises:

(d)   determining the activity of the transferrin-binding determinants of (c) in eliciting antibodies that cross-react with a plurality of different transferrin binding proteins; and

(e)   identifying the transferrin-binding determinants that can elicit cross-reactive antibodies as conserved transferrin-binding determinants.

24.   A method for preventing or treating a bacterial infection in a mammal, comprising administering to the mammal an effective amount of the molecule of any of claims 1-5, or the peptide of claim 6 or claim 7.

25.   A method for preventing or treating a bacterial infection in a mammal, comprising administering to the mammal an effective amount of an antibody that specifically recognizes the molecule of any of claims 1-5, or the peptide of claim 6 or claim 7.

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26.   The method of claim 24 or 25 wherein the bacterial infection is associated with a bacterium selected from the group consisting of *Neisseria spp.*, *Haemophilus spp.*, *Moraxella spp.*, *Mannheimia (Pasteurella) spp.*, *Actinobacillus spp.*, and *Staphylococcus spp.*

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27.   The method of claim 24 or 25 wherein the bacterial infection is associated with bacterial meningitis or otitis media.